

Environmental Protection Agency

§ 60.723

VOC emissions means the mass of VOC's emitted from the surface coating of plastic parts for business machines expressed as kilograms of VOC's per liter of coating solids applied (i.e., deposited on the surface).

(b) All symbols used in this subpart not defined below are given meaning in the Act or subpart A of this part.

D_c =density of each coating as received (kilograms per liter)

D_d =density of each diluent VOC (kilograms per liter)

L_c =the volume of each coating consumed, as received (liters)

L_d =the volume of each diluent VOC added to coatings (liters)

L_s =the volume of coating solids consumed (liters)

M_d =the mass of diluent VOC's consumed (kilograms)

M_o =the mass of VOC's in coatings consumed, as received (kilograms)

N =the volume-weighted average mass of VOC emissions to the atmosphere per unit volume of coating solids applied (kilograms per liter)

T =the transfer efficiency for each type of application equipment used at a coating operation (fraction)

T_{avg} =the volume-weighted average transfer efficiency for a coating operation (fraction)

V_s =the proportion of solids in each coating, as received (fraction by volume)

W_o =the proportion of VOC's in each coating, as received (fraction by weight)

[53 FR 2676, Jan. 29, 1988, as amended at 54 FR 25459, June 15, 1989]

§ 60.722 Standards for volatile organic compounds.

(a) Each owner or operator of any affected facility which is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance test, required by §§ 60.8 and 60.723 is completed, but not later than 60 days after achieving the maximum production rate at which the affected facility will be operated, or 180 days after the initial startup, whichever date comes first. No affected facility shall cause the discharge into the atmosphere in excess of:

(1) 1.5 kilograms of VOC's per liter of coating solids applied from prime coating of plastic parts for business machines.

(2) 1.5 kilograms of VOC's per liter of coating solids applied from color coating of plastic parts for business machines.

(3) 2.3 kilograms of VOC's per liter of coating solids applied from texture coating of plastic parts for business machines.

(4) 2.3 kilograms of VOC's per liter of coatings solids applied from touch-up coating of plastic parts for business machines.

(b) All VOC emissions that are caused by coatings applied in each affected facility, regardless of the actual point of discharge of emissions into the atmosphere, shall be included in determining compliance with the emission limits in paragraph (a) of this section.

§ 60.723 Performance tests and compliance provisions.

(a) Section 60.8 (d) and (f) do not apply to the performance test procedures required by this section.

(b) The owner or operator of an affected facility shall conduct an initial performance test as required under § 60.8(a) and thereafter a performance test each nominal 1-month period for each affected facility according to the procedures in this section.

(1) The owner or operator shall determine the composition of coatings by analysis of each coating, as received, using Method 24, from data that have been determined by the coating manufacturer using Method 24, or by other methods approved by the Administrator.

(2) The owner or operator shall determine the volume of coating and the mass of VOC used for dilution of coatings from company records during each nominal 1-month period. If a common coating distribution system serves more than one affected facility or serves both affected and nonaffected spray booths, the owner or operator shall estimate the volume of coatings used at each facility by using procedures approved by the Administrator.

(i) The owner or operator shall calculate the volume-weighted average mass of VOC's in coatings emitted per unit volume of coating solids applied (N) at each coating operation [i.e., for each type of coating (prime, color, texture, and touch-up) used] during each

§ 60.723

40 CFR Ch. I (7-1-13 Edition)

nominal 1-month period for each affected facility. Each 1-month calculation is considered a performance test. Except as provided in paragraph (b)(2)(iii) of this section, N will be determined by the following procedures:

(A) Calculate the mass of VOC's used ($M_o + M_d$) for each coating operation during each nominal 1-month period for each affected facility by the following equation:

$$M_o + M_d = \sum_{i=1}^n L_{ci} D_{ci} W_{oi} + \sum_{j=1}^m L_{dj} D_{dj}$$

where n is the number of coatings of each type used during each nominal 1-month period and m is the number of different diluent VOC's used during each nominal 1-month period. ($\sum L_{dj} D_{dj}$ will be 0 if no VOC's are added to the coatings, as received.)

(B) Calculate the total volume of coating solids consumed (L_s) in each nominal 1-month period for each coating operation for each affected facility by the following equation:

$$L_s = \sum_{i=1}^n L_{ci} V_{si}$$

where n is the number of coatings of each type used during each nominal 1-month period.

(C) Select the appropriate transfer efficiency (T) from table 1 for each type of coating applications equipment used at each coating operation. If the owner or operator can demonstrate to the satisfaction of the Administrator that transfer efficiencies other than those shown are appropriate, the Administrator will approve their use on a case-by-case basis. Transfer efficiency values for application methods not listed below shall be approved by the Administrator on a case-by-case basis.

An owner or operator must submit sufficient data for the Administrator to judge the validity of the transfer efficiency claims.

(D) Where more than one application method is used within a single coating operation, the owner or operator shall determine the volume of each coating applied by each method through a means acceptable to the Administrator and compute the volume-weighted average transfer efficiency by the following equation:

$$T_{avg} = \frac{\sum_{i=1}^n \sum_{k=1}^p L_{ci} V_{sik} T_k}{L_s}$$

Environmental Protection Agency

§ 60.724

TABLE 1—TRANSFER EFFICIENCIES

Application methods	Transfer efficiency	Type of coating
Air atomized spray	0.25	Prime, color, texture, touch-up, and fog coats.
Air-assistd airless spray.	.40	Prime and color coats.
Electrostatic air spray	.40	Do.

where n is the number of coatings of each type used and p is the number of application methods used.

(E) Calculate the volume-weighted average mass of VOC's emitted per unit volume of coating solids applied (N) during each nominal 1-month period for each coating operation for each affected facility by the following equation:

$$N = \frac{M_o + M_d}{L_s T_{avg}}$$

(T_{avg} =T when only one type of coating operation occurs).

(ii) Where the volume-weighted average mass of VOC's emitted to the atmosphere per unit volume of coating solids applied (N) is less than or equal to 1.5 kilograms per liter for prime coats, is less than or equal to 1.5 kilograms per liter for color coats, is less than or equal to 2.3 kilograms per liter for texture coats, and is less than or equal to 2.3 kilograms per liter for touch-up coats, the affected facility is in compliance.

(iii) If each individual coating used by an affected facility has a VOC content (kg VOC/l of solids), as received, which when divided by the lowest transfer efficiency at which the coating is applied for each coating operation results in a value equal to or less than 1.5 kilograms per liter for prime and color coats and equal to or less than 2.3 kilograms per liter for texture and touch-up coats, the affected facility is in compliance provided that no VOC's are added to the coatings during distribution or application.

(iv) If an affected facility uses add-on controls to control VOC emissions and if the owner or operator can demonstrate to the Administrator that the volume-weighted average mass of VOC's emitted to the atmosphere during each nominal 1-month period per

unit volume of coating solids applied (N) is within each of the applicable limits expressed in paragraph (b)(2)(ii) of this section because of this equipment, the affected facility is in compliance. In such cases, compliance will be determined by the Administrator or a case-by-case basis.

[53 FR 2676, Jan. 29, 1988, as amended at 65 FR 61778, Oct. 17, 2000]

§ 60.724 Reporting and recordkeeping requirements.

(a) The reporting requirements of § 60.8(a) apply only to the initial performance test. Each owner or operator subject to the provisions of this subpart shall include the following data in the report of the initial performance test required under § 60.8(a):

(1) Except as provided for in paragraph (a)(2) of this section, the volume-weighted average mass of VOC's emitted to the atmosphere per volume of applied coating solids (N) for the initial nominal 1-month period for each coating operation from each affected facility.

(2) For each affected facility where compliance is determined under the provisions of § 60.723(b)(2)(iii), a list of the coatings used during the initial nominal 1-month period, the VOC content of each coating calculated from data determined using Method 24, and the lowest transfer efficiency at which each coating is applied during the initial nominal 1-month period.

(b) Following the initial report, each owner or operator shall:

(1) Report the volume-weighted average mass of VOC's per unit volume of coating solids applied for each coating operation for each affected facility during each nominal 1-month period in which the facility is not in compliance with the applicable emission limits specified in § 60.722. Reports of non-compliance shall be submitted on a quarterly basis, occurring every 3 months following the initial report; and

(2) Submit statements that each affected facility has been in compliance with the applicable emission limits specified in § 60.722 during each nominal